Missouri Department of Natural Resources
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Proposed Holcim Lee Island Facility Frequently Asked Questions

Fact sheet 1/2004

Holcim's Lee Island Facility project involves the construction and operation of a limestone quarry, cement plant and harbor located less than 45 miles south of St. Louis and eight miles north of Bloomsdale on the Mississippi River.

Holcim submitted several permit applications within the Department of Natural Resources for the construction and eventual operation of the facility. Since receiving these applications, the department has been working closely with Holcim to address the various environmental issues related to the project.

Air Quality Issues

The department recognizes the need to balance the economic needs of the state and the environmental issues associated with the proposed facility. The proposed plant will impact the area around the facility and has a significant potential for air quality impacts on the St. Louis metropolitan area. The department is working hard to continue improving the overall St. Louis air quality. This will in turn help protect the economic viability of the region by making it a cleaner, healthier place to live while keeping open the prospects for reasonable growth and development.

Why is the department issuing a draft air permit for the Holcim Cement Plant?
The department is issuing a draft air permit to limit air pollution from the facility that could affect air quality and public health. The department is legally obligated to issue permits to applicants who meet the legal and technical regulations and to demonstrate the facility will not affect air quality or violate federal and state air standards.

Will the Holcim facility harm air quality or public health?
Any air permit issued by the department allows a facility to emit some amount of air pollution. It is the department's job to ensure that air pollution will not harm public health or cause an area to violate clean air standards. Holcim is no exception. The department has made every effort to ensure the conditions placed in the permit are protective of public health and air quality standards.

What is the department doing to ensure protection for air quality?
The proposed Holcim facility is subject to federal and state rules that apply to sources proposing to build in areas that meet all air quality standards. These rules are called Prevention of Significant Deterioration (PSD) rules. The PSD rules require a facility to install pollution controls based on a Best Available Control Technology (BACT) analysis. The department is also requiring the use of additional controls to protect the predicted impacts of Holcim's facility on the air quality in the St. Louis area.

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How will the department's draft permit address impacts on the St. Louis air quality?
The impacts are expressed in part-per-billion (ppb) impact. The department is seeking to ensure the facility will not appreciably impact the St. Louis area by requiring emission controls and placing emission limits in the facility's air pollution permit. This permit is also known as the construction permit. The department determined that based on technical guidance an increase of 2 ppb in ozone is significant for permitting purposes. The draft permit contains emission limits based on this benchmark.

Will approval of this permit impact St. Louis air quality with respect to ozone?
Any large source of emissions of oxides of nitrogen (NOx) located upwind of the St. Louis area has such potential. Oxides of nitrogen react with volatile organic compounds in the atmosphere under warm climate conditions to form ground-level ozone. Oxides of nitrogen are capable of travelling long distances. Consequently, sometimes problems occur far downwind from the actual source of NOx emissions. The department has evaluated the potential impact of the proposed Holcim facility due to the magnitude of its NOx emissions. The department used computer modeling to estimate impacts and placed stringent conditions in the draft air permit to address the predicted impacts.

Because the concentration of NOx emissions are greater during the ozone season, April 1 through Oct. 31, the draft permit contains stricter NOx emissions during the ozone season. The draft permit requires the use of Selective Non-catalytic Reduction (SNCR), an add-on control, to further reduce NOx emissions. Holcim's facility is not currently in the designated 8-hour ozone attainment area. The facility would be located approximately 500 yards from the nonattainment area.

Will EPA's new proposed boundaries for the 8-hour ozone standard have an affect on the Holcim permit?
No. The current project for Holcim is held to the rules in existence at the time the department received an administratively complete application. The state's proposed boundaries for 8-hour ozone nonattainment area in St. Louis include the counties of Jefferson, Franklin, St. Charles, and St. Louis as well as the City of St. Louis. EPA has indicated the nonattainment area should include St. Genevieve County. The state has until Feb. 6, 2004, to respond to EPA's proposal. EPA will make the final determination by April 15, 2004.

However, the 8-hour ozone boundary designation process would affect all new major sources or existing sources that make major modifications in St. Genevieve County if EPA eventually includes Ste. Genevieve County in the 8-hour ozone nonattainment area.

How can the public voice concerns about the draft air permit?
The department's procedure for any air permit is to send a draft permit to the applicant for review prior to placing the permit public notice. This review period is typically 10 days. After the applicant review, the program will finalize a draft permit for public comment.

The department will place the draft air permit on public notice for 30 days and will hold a public hearing in St. Genevieve County to ensure citizens have ample opportunity to provide comments on the draft permit.

When the public comment period starts, the draft permit will also be available on the department's Web site at http://www.dnr.mo.gov/alpd/apcp/PermitPublicNotices.htm. In addition, the Web site will also have the public notice stating the details on how to submit public comments and the date and time of the public hearing. Concerned citizens may submit written comments during the public comment period, may speak at the public hearing, or may fax, e-mail or mail their comments to the department.

Land Mining Issues

Holcim owns about 4,000 acres at the proposed facility; however, only 1,627 acres are included as part of the mining permit to be mined over the next 100 years. Holcim's mining permit for the long-term mine plan takes into account a number of environmental steps in response to comments and concerns expressed by the department and the public during the permit review process. According to Holcim's current reclamation plan, most of the 1,627 acres of mine area will be reconstructed back into a natural setting after mining occurs. The majority of the remaining 2,300 acres will be maintained in its existing condition as a buffer area around the mining area.

How often will Holcim reclaim the mined land?

The department's Land Reclamation Program and the Land Reclamation Act recognize the destructive nature of mining and require concurrent reclamation. This means that an operator cannot proceed with mining without also proceeding with reclamation behind the mining cycle. Holcim has committed to keeping no more than 10 years worth of disturbance open at any one time.

How will the wildlife and biodiversity be protected?

A habitat assessment has been completed by the independent World Bird Sanctuary staff and Holcim is committing to return all habitat to its premined condition, to include topographic relief, plant and tree species, and so forth. Holcim's current reclamation plan has provisions to restore most of the 1,627 acres of proposed mined lands to wildlife habitat.

What will happen to the forest and vegetation at the facility?

The surface mining activity will eventually destroy all of the vegetative resource on the 1,627-acre mine site and may have additional impacts on other areas for roads, processing and related activities. Holcim has committed to return original species to these acres as part of the reclamation process.

Water Quality Issues - 404 Permit / 401 Certification

Best management practices are required throughout all phases of the project to protect water resources. Extensive monitoring will occur throughout the life of the project to ensure water quality is protected and to ensure proper restoration or creation of waterbodies. Typically, a 401 certification is considered to be for the life of the project, which in this case is roughly 100 years, or the life of the 404 permit. Holcim's certification is subject to department review every five years.

Why was 401 water quality certification needed for this project?

The federal Clean Water Act requires that before certain federal permits can be issued there must first be a determination by the state that the project will not violate the state's water quality standards. This project required a 404 Permit from the U.S. Army Corps of Engineers so it also needed a certification from the state that it would not violate Missouri's water quality standards.

When was the certification issued?

The department issued a 401 water quality certification in 2001, but the certification was appealed. The Clean Water Commission found that the department should have held a public hearing on the project, and so the certification was not valid. Holcim applied for a new certification, and the department held a public hearing June 2002 and issued a new certification. However, Holcim objected to some of the requirements or conditions placed in the certification and appealed those conditions. The department worked with Holcim to develop alternative conditions that would protect water quality. The department issued the revised and final water quality certification to Holcim in November 2002.

What is the department doing to ensure protection for water quality?
The 401 water quality certification specifies that the department can modify, suspend or withdraw the certification in certain instances, such as if Holcim doesn't follow the conditions or if the department has information that water quality impacts are beyond those anticipated.

How will Holcim restore or create water resources so there is no net loss of resources?
The Clean Water Act does allow for activities like this that impact waters of the state if those impacts are avoided and minimized as much as possible. In this case, Holcim did reduce the potential impacts even after applying for a permit and certification. If impacts can't be avoided, then the applicant must provide mitigation, which means it must restore or create water resources so that there is no net loss of resources. For example, if a wetland is destroyed, the applicant needs to restore or build a new wetland. Holcim is providing mitigation for all impacts to streams and wetlands. The end result is Holcim will create more wetlands by the end of the project than exist on the property to date.

For every mile of stream impacted, Holcim will restore or create a mile of stream. Native soils and native vegetation will be used for restoration. For every acre of wetlands impacted, Holcim will restore or create at least one acre of wetland, resulting in no net loss. For particularly high quality wetlands, such as wooded wetlands, Holcim will restore or create three acres of wetlands for every acre impacted.

How has Holcim reduced impacts to the streams and wetlands near the proposed facility?
Holcim reduced impacts from the original 404 application by 0.2 stream miles and 2.6 acres of wetlands. It eliminated impacts to Isle du Bois Creek and moved the facility to avoid 1.5 acres of wetlands. The haul road location was changed to avoid direct impacts to wetlands, and the project was changed to reduce impacts to Hickory Hollow and North Hollow streams.

Why was the certification or permits issued without an Environmental Impact Statement?
An Environmental Impact Statement is a requirement under the federal National Environmental Policy Act. An EIS is required for a major federal action that significantly affects the quality of the human environment. The federal action that had the potential to trigger an EIS was the Section 404 permit issued to Holcim by the U.S. Army Corps of Engineers for the proposed barge fleeting facilities at the site. During the review of the Section 404 permit, the Corps received numerous requests for an EIS. However, the Corps of Engineers determined that an EIS was not necessary. The Corps' Environmental Assessment resulted in a "Finding of No Significant Impact." Current regulations do not give the Department of Natural Resources, or the state, the authority to require an EIS prior to the issuance of any state-required permits. Without a law granting that authority, the department could not require an EIS.

However, the certification was written so the department can consider information contained in any future EIS and modify the certification based on that information. That way, if an EIS shows there is more impact to waters of the state than anticipated, the department can take steps to protect water quality and require appropriate mitigation.

Water Quality Issues - Storm Water Permit

Holcim agreed to roll all of the site activities under one site-specific storm water permit. To do this, Holcim committed to reopening its current water permits. The permit requirements will be more stringent. Holcim will apply best management practices to the entire site to reduce pollutants, such as silts and sediments, to the maximum extent practicable. Holcim must develop a storm water pollution prevention plan prior to any future site development.

Holcim is constructing sedimentation basins at all major storm water outlets from the project site. All of these basins are designed to treat a flow that would result from up to a 10-year 24-hour rainfall event (approximately six inches over a 24-hour period).

No raw materials, manufacturing wastes or product stockpiles or byproducts will be exposed to storm water. All handling of such materials will be protected by roof and contained in covered trucks, bins or other stormproof vessels.

Will the proposed Holcim facility discharge wastewater?
No process wastewater, water from manufacturing processes or sanitary wastewater treatment, will be discharged. Holcim will recycle water from the material dredged during harbor construction back into the dredged site. This eliminates any wastewater from entering into streams adjacent to the project area. Holcim has designed the facility so that storm water discharges are limited only to runoff during rainfall events. Sanitary wastewater will be captured, treated and recycled into the manufacturing process, resulting in no discharge.

What about drinking water for the proposed Holcim facility?
Holcim is proposing to construct a non-transient, non-community public water supply at the St. Genevieve site. The projected number of employees to be served is approximately 1,000 during a 36-month construction period and 200 employees during normal site operation.

Dam and Reservoir Safety Issues

The owners of dams built after Aug. 13, 1980, are required to obtain a construction permit to build the dam if the dam is at least 35 feet in height. The height is measured from the low point on the top of the dam exclusive of the spillway(s) to the low point at the downstream toe of the dam. The construction permit application must be prepared by a professional engineer, registered in Missouri and experienced in the design and construction of dams. Following the construction of the dam, a safety permit is issued, which is the operating permit for the dam. The safety permit must be renewed at least every five years. The renewal process requires safety inspections of the dam by registered professional engineers. The renewal is based on the adequate performance of the dam since the last permit was issued.

Why was Holcim required to obtain a construction permit to build a dam?
Part of the Holcim project includes the construction of the South Old Quarry Hollow Dam. This dam will be 141 feet tall and will create a 25-acre lake with 1,150 acre foot of storage.

What is the purpose of the lake?
The lake will be used to store dredged material from the Mississippi River floodplain when the harbor is constructed.

Will the dam and lake be a permanent feature at the site?
The estimated life of the dam is about 20 years. The dam will be eliminated when the quarry expands to include the area where the dam is located.

What permits have been issued by the department to Holcim?

Air Pollution Control Program

- Construction Permit allowing the construction and operation of the cement kiln, quarry and all other operations at the site has been drafted and has been sent to Holcim for review on Jan. 23, 2004.
- Construction Permit must go through a public participation process prior to issuance of the final permit. Public participation process estimated to take 60 days. (This includes revision to the draft permit based on public comments.)

- Submittal of Operating Permit Application is required within one year of commencement of operations.
- Temporary Air Pollution Control Permit to construct and operate portable crushing equipment for the construction of the access road issued on Feb. 14, 2001. This permit is no longer needed.

Water Resources Program

- Construction permit for the South Old Quarry Hollow Dam was issued on Dec. 30, 2003. Permit is issued for a one-year period.

Land Reclamation Program

- Mining permit issued Aug. 12, 2003. Permit is for the entire life of the quarry and must be renewed annully. The quarry area included 1,627 acres. The first area allowed to be mined and for which Holcim has submitted sufficient bonding is for 132 acres. This permit replaces the original permit for the existing 64-acre quarry and Holcim's earlier request for a 35-acre expansion.
- This permit was appealed to the Circuit Court alleging violations of the open meeting portions of the Sunshine Law by the Missouri Land Reclamation Commission and the 2001 amendments to the Land Reclamation Act as being unconstitutional.
- On Dec. 28, 2003, the court ruled in favor of the Missouri Land Reclamation Commission on both counts.

Water Protection Program - Water Quality Certification

- 404 permit issued by the Corps of Engineers on July 8, 2003.
- 401 Water Quality Certification issued by the department on Nov. 13, 2002.
- 401 Certification Appealed, Settlement Agreement between Holcim and DNR signed May 20, 2003.

Water Protection Program - Wastewater and storm water discharge permits

- State water operating (NPDES) permit for entire project issued on Jan. 23, 2004. This includes consideration of all process and storm water discharges and includes the construction permit allowing construction of the three storm water sedimentation basins. Another water permit issued on Oct. 10, 2002, includes a land disturbance for development of the road. Renewed on July 26, 2002, this permit expires on Feb. 7, 2007.

Water Protection Program - Public drinking water permits

- Engineering report for a non-transient, non-community water supply well to serve both drinking water and process water needs for Holcim was approved on Aug. 18, 2003. Holcim is now conducting aquifer evaluations to determine water quality and quantity issues for the proposed well.

For More Information

Contact the Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176
1-800-361-4827
(573) 751-3443
www.dnr.mo.gov - Web Address